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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/291,407 04/13/99 RICHARD

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EXAMINER

HAWKINS, J

ART UNIT

PAPER NUMBER

3672

DATE MAILED:

07/05/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/291,407

Applicant(s)

RICHARD ET AL.

Examiner

Jennifer M Hawkins

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "22" and "34" have both been used to designate the wellbore in Fig. 1. Correction is required.
2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the open grid (26), the holes (14) or the segment (12) in Fig. 3 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the reinforcement between the body and the filter assembly must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

4. If applicant desires priority under 35 U.S.C. 119(e) based upon a previously filed copending application, specific reference to the earlier filed application must be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The title should be amended to be commensurate with the claimed invention, i.e., should include – And Method Of Well Completion.- -

6. The use of the trademark VITON has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

7. The abstract of the disclosure is objected to because should not recite purported merits or advantages of the invention. Correction is required. See MPEP § 608.01(b).

8. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;

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- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The above claims are rejected as being based on a specification that is confusing. It is unclear as to where segment 12 is located on the tool. Neither the drawings nor the specification indicates where segment 12 is in relation to the tubing. The only indication as to where to place segment 12 is "at the desired location" (page 4, lines 10-12). In the same sentence, it is noted that the segment can be as long as the length of coiled tubing. It is unclear if the segment is meant to be attached to the bottom of a coiled tubing string or if it is meant to be wrapped around the tubing. If the segment is meant to be wrapped around the tubing it is not understood how the tool would work. With the segment, and the holes (14), around a solid tube there is no way for fluid to flow through the screen thus defeating to purpose of the screen.

It is noted that, on page 6, lines 17-19, the tubing itself can be perforated with holes 14. This, however, is taken to be a different embodiment than that involving segment 12 and does not eliminate the confusion of the specification.

It is also unclear as to what the reinforcement or support between the body and the filter assembly in claims 5, 12, 18 refers to. As noted on page 4, lines 18-19, the

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grid (26) is "to provide a support off of tube 20 for the open cell filter media." Figure 2 depicts the grid outside the filter media not between the body and the filter assembly. If the grid is not meant to be the reinforcement in the above claims then the drawings are objected to as not showing claimed subject matter as they must under 37 CFR 1.83(a). If the grid is meant to be the reinforcement referred to in the above claims it is confusing as to how the reinforcement is between the body and the filter assembly.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

12. Claims 1, 2, 6, 8, 9, 14, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Donnelly et al.

Donnelly et al. discloses a deformable well screen that can be conveyed into the wellbore using coiled tubing. More specifically, Donnelly et al. teaches a well screen tool that includes an expandable, perforated body covered by a filter assembly. The perforated body and the filter assembly are expanded using an expansion cone and covered with a protective tube. The well screen is constructed from flat layers of woven metal mesh that is pressed together and then rolled along its longitudinal axis.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3, 4, 11, 16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donnelly et al. in view of Swift.

Donnelly et al. discloses all the limitations of the above claims except for a corrugated, expandable tube that is round after expansion. Swift teaches a corrugated well screen that can be expanded inside the wellbore into a rounded shape. It would have been considered obvious to someone of ordinary skill in the art, at the time of the invention, to form the well screen tool disclosed by Donnelly et al. using the corrugated well screen taught by Swift. In wellbores with irregular shapes and sharp bends, a well screen smaller than the diameter of the wellbore must be used thus reducing the size of the wellbore. Using a corrugated, expandable well screen would allow a larger well screen to fit in to the same wellbore. Upon expansion it would fit tightly against the sides of the wellbore and not disrupt the diameter of the wellbore as much as a conventional well screen would. Thus it would have been obvious to form the well screen tool disclosed by Donnelly et al. using the corrugated well screen taught by Swift in order to disrupt production as little as possible.

15. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donnelly et al. in view of Swift as applied to claims 3, and 11 above and further in view of Uban et al.

Donnelly et al. and Swift disclose all the limitations of the above claims except for a reinforcement between the body of the tool and the filter assembly. Uban et al. teaches a reinforcement between the body and the filter assembly. It would have been considered obvious to someone of ordinary skill in the art, at the time of the invention, to place a reinforcement layer between the body and the filter assembly. A reinforcement layer, or inner protective layer, between the body and the filter assembly prevents "sand and other particulate material from passing into the interior of the pipe" (col. 3, lines 58-61). The purpose of a well screen is partly to protect the wellbore equipment from erosion due to sand and other debris from an unconsolidated formation. An inner

protective layer enhances the effectiveness of the well screen therefore protecting the wellbore equipment. Thus it would have been obvious to have a reinforcement layer taught by Uban et al. in between the body and the filter assembly taught by Donnelly et al. and Swift.

16. Claims 5, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donnelly et al. in view of Uban et al.

Donnelly et al. discloses all the limitations of the above claims except for a reinforcement between the body of the tool and the filter assembly. Uban et al. teaches a reinforcement between the body and the filter assembly. It is obvious to someone of ordinary skill in the art, at the time of the invention, to place a reinforcement layer between the body and the filter assembly. A reinforcement layer, or inner protective layer, between the body and the filter assembly prevents "sand and other particulate material from passing into the interior of the pipe" (col. 3, lines 58-61). The purpose of a well screen is partly to protect the wellbore equipment from erosion due to sand and other debris from an unconsolidated formation. An inner protective layer enhances the effectiveness of the well screen therefore protecting the wellbore equipment. Thus it would be obvious to have a reinforcement layer taught by Uban et al. in between the body and the filter assembly taught by Donnelly et al.

With regards to claim 10, Donnelly et al. discloses all the limitations of the claim except for a spirally rolled, perforated member. Uban et al. teaches a spirally rolled, perforated member. It is obvious to someone of ordinary skill in the art, at the time of the invention, to spirally roll the perforated segment of Donnelly et al. as taught by Uban et al. to provide an alternative way of making the screen of Donnelly et al.

17. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Donnelly et al. in view of Arterbury et al.

Donnelly et al. discloses all the limitations of the above claims except for a removable protective cover. Arterbury et al. teaches a protective cover that can be dissolved inside the wellbore. It is obvious to someone of ordinary skill in the art, at the

time of the invention, to form the protective cover of Donnelly et al. from a material that will be removable inside the wellbore. A protective cover is used to protect the screen as it is lowered into the borehole but an unperforated protective cover would not allow fluid to pass through the screen, defeating the purpose of the screen. Thus it would be obvious to use a protective screen that can be removed inside the wellbore as taught by Arterbury et al. allowing the screen to function once in place.

18. Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donnelly et al. in view of the Perforated Tubes Inc brochure.

Donnelly et al. discloses all the limitations of the above claims except for a perforated segment having an open area of up to 40%. The Perforated Tubes Inc brochure teaches a well screen of various different perforation patterns and percentages of open areas. It is obvious to someone of ordinary skill in the art, at the time of the invention, to form the well screen of Donnelly et al. with an open area of up to 40% as taught by the Perforated Tubes Inc brochure. Pressure drop across the well screen is directly related to the percentage of open area on the screen; the greater the percentage, the less the pressure drop. Since large pressure drops are not desirable in the wellbore it would be obvious to make the well screen taught by Donnelly with an open area of up to 40%.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer M Hawkins whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday and every 2nd Friday, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-7687 for regular communications and (703) 306-7687 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

JMH

June 29, 2000


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